

Listing of the Claims:

A clean version of the entire set of pending claims is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Original) A method for providing feedback during an inspection of an object, the method comprising:

receiving first image data representing the object, the first image data being produced using an image parameter;

determining parameter modification information for the image parameter from the first image data;

modifying the image parameter to a modified image parameter with the parameter modification information; and

receiving second image data representing the object, the second image data being produced using the modified image parameter.

2. (Original) The method of Claim 1, wherein the image parameter is an image acquisition parameter.

3. (Original) The method of Claim 2, wherein said determining includes processing the first image data to calculate the parameter modification information for the image acquisition parameter.

4. (Original) The method of Claim 2, wherein said producing the first image data includes capturing a first image of the object, and wherein said producing the second image data includes capturing a second image of the object.

5. (Original) The method of Claim 4, wherein said determining further includes determining an incorrect classification of at least one feature of the object based on the first image data as a result of an original setting of the image acquisition

parameter, calculating the parameter modification information to correct the incorrect classification and modifying the original setting of the image acquisition parameter to a modified setting based on the parameter modification information.

6. (Original) The method of Claim 5, wherein said producing the first image data includes producing first raw image data representing the first image using the original setting of the image acquisition parameter, and wherein said producing the second image data includes producing second raw image data representing the second image using the modified setting of the image acquisition parameter.

7. (Original) The method of Claim 2, wherein the image acquisition parameter is at least one of an illumination parameter, resolution parameter, sensor parameter or image view parameter.

8. (Original) The method of Claim 1, wherein the at least one parameter is an image processing parameter.

9. (Original) The method of Claim 8, wherein said determining includes determining an incorrect classification of at least one feature of the object based on the first image data as a result of an original setting of the image processing parameter, calculating the parameter modification information to correct the incorrect classification and modifying the original setting of the image processing parameter to a modified setting based on the parameter modification information.

10. (Original) The method of Claim 9, wherein said producing the first image data includes processing raw image data representing an image of the at least one feature of the object using the original setting of the image processing parameter to produce the first image data, and wherein said producing the second image data includes processing the raw image data using the modified setting of the image processing parameter to produce the second image data.

11. (Original) The method of Claim 8, wherein the image processing parameter is at least one of a processing type parameter or a processing complexity parameter.

12. (Original) A method for providing feedback during an inspection of an object, the method comprising:

setting at least one image acquisition parameter to capture a first image of the object;

determining parameter modification information from image data representing the first image; and

modifying the image acquisition parameter based on the parameter modification information to capture a second image of the object.

13. (Original) The method of Claim 12, wherein said determining includes processing the image data to measure the parameter modification information.

14. (Original) The method of Claim 12, wherein said determining further includes determining an incorrect classification of at least one feature of the object based on the image data as a result of said setting.

15. (Original) The method of Claim 13, wherein said determining the parameter modification information further includes determining the parameter modification information to correct the incorrect classification and produce an adequate classification from the second image.

16. (Original) The method of Claim 12, wherein the image acquisition parameter is at least one of an illumination parameter, resolution parameter, sensor parameter or image view parameter.

17. (Original) An inspection system for providing feedback during an inspection of an object, comprising:

a processor connected to receive first image data representing the object, the first image data being produced using an image parameter, said processor being operable to determine parameter modification information for the image parameter from the first image data for use in producing second image data representing the object.

18. (Original) The inspection system of Claim 17, further comprising:

a sensor disposed in relation to the object to receive illumination projected from the object, capture a first image of the object and produce first raw image data representing the first image, said sensor being connected to provide the first raw image data to said processor.

19. (Original) The inspection system of Claim 18, wherein said processor includes an image analysis processor operable to process the first raw image data to produce first processed image data.

20. (Original) The inspection system of Claim 19, wherein the first raw image data is the first image data, and wherein the image analysis processor is operable to process the first raw image data to measure the parameter modification information for the image parameter.

21. (Original) The inspection system of Claim 19, wherein the first processed image data is the first image data, and wherein said processor further includes a classification processor connected to receive the processed image data, determine an incorrect classification of at least one feature of the object based on the processed image data as a result of an original setting of the image parameter, calculate the parameter modification information to correct the incorrect classification

and modify the original setting of the image parameter to a modified setting based on the parameter modification information.

22. (Original) The inspection system of Claim 21, wherein said sensor is further configured to capture a second image of the object and produce second raw image data representing the second image using the modified setting of the image parameter.

23. (Original) The inspection system of Claim 21, wherein said image analysis processor is further operable to process the first raw image data using the modified setting of the image parameter to produce second processed image data.

24. (Original) The inspection system of Claim 23, wherein the image parameter is at least one of a processing type parameter or a processing complexity parameter.

25. (Original) The inspection system of Claim 18, wherein the image parameter is a sensor parameter associated with said sensor.

26. (Original) The inspection system of Claim 25, wherein the sensor parameter is at least one of an exposure duration of said sensor or a resolution associated with the first raw image

27. (Original) The inspection system of Claim 18, wherein the image parameter is a view parameter controlling the positional relationship between said sensor and the object.

28. (Original) The inspection system of Claim 18, further comprising:

an illumination source disposed in relation to the object to illuminate the object, the image parameter being an illumination parameter controlling said illumination source.

29. (Original) The inspection system of Claim 28, wherein said illumination source illuminates the object with a beam of X-rays.

30. (Original) The inspection system of Claim 28, wherein said illumination source illuminates the object with light